

Remarkable Richland

Richland, Washington, known for its remarkable community, was ranked the 16th best place to live by Money Magazine. The community offers a combination of natural beauty and top-ranked city services that contributes to the high quality of life treasured by Richland's residents. To maintain the natural beauty of the town and the services offered by the community, energy efficiency and environmental conservation has become a way of life.

Upon joining in 1998, Richland developed a program to focus on organizational restructuring, employee training and new program development. The City also wanted to improve the facility resource management skills and develop better products and services for its commercial, industrial and residential customers.

In the Beginning...

To begin implementation of this program, the City targeted one of its own buildings for retrofits. Working with Essco Electric, Inc., Richland wanted to begin a retrofit project at the 30,000 square foot Richland City Library. The library was built in 1969 and until the retrofits began, it had used the original lighting system. The City spent about \$50,000 annually in electricity for the library alone, so the goals of the retrofits were to improve the quality and quantity of light, reduce operating and maintenance costs, reduce energy consumption by 40 percent and operating

costs by \$12,500 per year, and bring the facility into compliance with current Washington State energy codes.

The combined result of these actions was positive: a more energy-efficient lighting system offering increased horizontal and vertical intensity, less glare and improved color rendering. Only one negative effect appeared to be evident: because the new lighting system is more energy efficient, it generates less excess heat than its predecessor system. This



Patron Patricia Godoy-Kain (seated right) enjoys reading journals in the library's newly relit Periodical & Magazine reading area.

means that the existing Heating, Ventilation and Air Condition (HVAC) system must work harder in the heating mode than the previous system. However, the HVAC system has less of a cooling load to tackle, and thus may be oversized for cooling. The lighting and HVAC system interaction is commonplace, especially when a lighting system is updated and made more energy efficient.

PARTNERSHIP FACTS:

- **Targeted Buildings:**
Public Facilities
- **Total Building Area Committed:**
Public Library, 30,000 square feet
Richland Policy Facility, TBD
Richland Center Facility, 22,500 square feet
Municipal Utility Accounting, TBD
- **Cost Savings:**
Public Library, saving \$12,500 per year
- **Completion Date:**
Public Library: 1999
Richland Police Facility, 2001
Richland Center Facility, 2001
Municipal Utility Accounting, TBD

Changing the Environment

There was a lesson learned about people's perception of lighting and lighting needs. "What was perceived as an improvement in energy efficiency and maintenance of lighting levels, library staff and patrons perceived as darkness and reading difficulty," said Larry Dunbar, Resource Management Manager. Staff and patrons were used to the old lighting system, remarking that ceilings and walls were no longer well illuminated. The library users should have been better informed at the beginning of the project that the book storage and reading areas were very well lit, and that a less brightly lit wall or ceiling wasn't critical to reading in the stacks or at a cubicle. Dunbar notes, "It was through education that we were able to obtain satisfaction and now the library staff and patrons have accepted the new lighting system and are satisfied."

When asked about how to increase energy savings even more, Dunbar said, "We think that energy accounting for the City's sixty-plus buildings is the best way to continue our energy and resource management efforts. Currently the City is using a very old and cumbersome manual accounting system for its buildings. With new, more advanced energy accounting systems, the City will be able to identify buildings with the greatest energy savings potential and be able to document savings as energy efficiency projects are implemented."

The City has two new municipal buildings in design and has made building energy efficiency a high priority. The buildings, a Police Services Facility and the Richland Center, will realize the

significant benefits of energy efficiency through the technical assistance of Rebuild America. Dunbar states, "In the design of our new buildings, we recognize that at only a small incremental cost for energy efficiency improvements, the City and its residents save money on energy costs over the life of the building."



This poster was developed to graphically show patrons the dollar and energy savings to the community from the lighting project.

Looking Toward the Future

With the success of a single library lighting retrofit project, the City of Richland has expanded its energy conservation and efficiency efforts into its new buildings and its community programs. Richland is committed to not only doing their part for the environment, but also to continue their reputation of being a community on which residents can depend and take pride in. In the area of energy efficiency, the City of Richland clearly deserves to be known as Remarkable Richland. According to Dunbar, "Rebuild America has been a valuable resource to the City through its implementation of energy efficiency projects."

TO LEARN MORE ABOUT REBUILD RICHLAND, CONTACT:

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